

**REMARKS/ARGUMENTS**

Reconsideration of this application is respectfully requested.

In response to the rejection of claims 1-8 under 35 U.S.C. §112, second paragraph, all of the claims have been reviewed and amended above so as to put them into more appropriate US format. As revised, all claims are believed to be in full compliance with US statutes.

The rejection of claims 1-7 under 35 U.S.C. §102 as allegedly anticipated by Sambuelli '537 is respectfully traversed.

Claim 1 requires, *inter alia*, a square array of seismic sensors with a defined arm length, vector summation, etc. -- none of which is in any way taught or suggested by Sambuelli '537. While Sambuelli does use a plurality of seismic sensors, he appears to merely arithmetically combine outputs from spatially oriented sensors so as to arguably output only signals representative of horizontally polarized shear waves SH. If Sambuelli '537 teaches a method that is actually capable of such, it is an entirely different method from that which has been claimed by the applicant.

In view of the fundamental deficiencies of Sambuelli with respect to parent claim 1, it is not believed necessary to further discuss the deficiencies of this reference with respect to dependent claims 2-7.

The rejection of claims 1-7 under 35 U.S.C. §102 as allegedly anticipated by Roche '018 is also respectfully traversed.

Roche is even less relevant than Sambuelli. Roche proposes the use of time-space windowing and polarization in a method of common trace-pair cross-correlation and/or other approaches to D-convolving the distorting effects of the near surface, etc. However, there does not appear to be any teaching or suggestion whatsoever of the method set forth in applicant's claim 1 involving, *inter alia*, a square array having a particular arm length combined with vector summation, etc.

The rejection of claim 8 under 35 U.S.C. §102 as allegedly anticipated by Kent '929 is also respectfully traversed.

Kent is directed to a touch sensitive screen and analyzes acoustic disturbances to help analyze the touch position on the screen (i.e., x, y coordinants). The acoustic waves appear to be generated inside a rectangular boundary with transmit/receive transducers being located at corners of such boundary. In any event, the Kent teaching does not appear to have any particular relevance to a seismic sensor array for recording horizontally polarized shear waves while filtering out all other non-SH waves -- nor to an array of such sensors in the shape of a regular polygon, each side of the polygon having at least one sensor at its mid-point and aligned along that respective side -- let alone each sensor being connected for vector summation of its output with that of all other sensors, etc. Even the regular polygon boundary pointed to by the Examiner at Figure 15B has transducers located at the corners -- not in the middle of each arm.

In short, Kent appears to be essentially irrelevant with respect to the claim 8 structure.


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January 31, 2006

The Examiner's attention is also drawn to new method claims 9 and 10. It will be noted that new method claim 9 is supported by Figure 2 and related text of the present application and further defines from all of the cited references. Claim 10 adds yet further distinguishing detail.

Accordingly, this entire application is now believed to be in allowable condition and a formal Notice to that effect is respectfully solicited.

Respectfully submitted,

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